CHAPTER 5

WATER QUALITY PARTNERSHIPS IN THE WATAUGA RIVER WATERSHED

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5.1 BACKGROUND. The Watershed Approach relies on participation at the federal, state, local and nongovernmental levels to be successful. Two types of partnerships are critical to ensure success:

- Partnerships between agencies
- Partnerships between agencies and landowners

This chapter describes both types of partnerships in the Watauga River Watershed. The information presented is provided by the agencies and organizations described.

5.2 FEDERAL PARTNERSHIPS.

5.2.A. Natural Resources Conservation Service. The Natural Resources Conservation Service (NRCS), an agency of the U.S. Department of Agriculture, provides technical assistance, information, and advice to citizens in their efforts to conserve soil, water, plant, animal, and air resources on private lands.

Performance & Results Measurement System (PRMS) is a Web-based database application providing USDA Natural Resources Conservation Service, conservation partners, and the public fast and easy access to accomplishments and progress toward strategies and performance. The PRMS may be viewed at http://sugarberry.itc.nrcs.usda.gov/netdynamics/deeds/index.html. From the PRMS Products Menu, select "Products," then select "Conservation Treatments." Select the desired program and parameters and choose "Generate Report."

The data can be used to determine broad distribution trends in service provided to customers by NRCS conservation partnerships. These data do not show sufficient detail to enable evaluation of site-specific conditions (e.g., privately-owned farms and ranches) and are intended to reflect general trends.

CONSERVATION PRACTICE	ACRES
Conservation Buffer	0
Erosion Control	392
Irrigation Management	0
Nutrient Management Applied	1,550
Pest Management	1,237
Prescribed Grazing	471
Salinity and Alkalinity Control	0
Tree and Shrub Practices	0
Tillage and Residue Management	265
Wildlife Habitat Management	22
Wetlands Created, Restored, and Enhanced	0
Total	**3,935**

Table 5-1. Landowner Conservation Practices in Partnership with NRCS in Tennessee Portion of Watauga River Watershed. *Data are from PRMS for October 1, 1999 through September 30, 2000 reporting period. More information is provided in Watauga-Appendix V.*

5.2.B. Tennessee Valley Authority (TVA). TVA's vision for the 21st century is to generate prosperity for the Tennessee Valley by promoting economic development, supplying low-cost, reliable power, and supporting a thriving river system. TVA is committed to the sustainable development of the region and is engaged in a wide range of watershed protection activities. TVA formed 12 multidisciplinary Watershed Teams to help communities across the Tennessee Valley actively develop and implement protection and restoration activities in their local watersheds,. These teams work in partnership with business, industry, government agencies, and community groups to manage, protect, and improve the quality of the Tennessee River and its tributaries. TVA also operates a comprehensive monitoring program to provide real-time information to the Watershed Teams and other entities about the conditions of these resources. The

following is a summary of TVA's resource stewardship activities in the Watauga watershed.

MONITORING

Vital Signs Monitoring

Reservoir Monitoring: TVA has monitored the quality of water resources of Watauga and Boone Reservoir regularly as part of its Vital Signs Monitoring effort since 1991. Physical, chemical, and biological indicators (dissolved oxygen, chlorophyll, sediment chemistry, benthos, and fish) provide information from various habitats on the ecological health of the reservoir. These parameters are sampled on Boone Reservoir at mid-reservoir (WRM 6.5), and near Boone Dam (SFHRM 19.00). Sampling on Watauga Reservoir is done at mid-reservoir (WRM 45.5), and near Watauga Dam (WRM 37.4).

Numeric ratings are given to all of the indicators sampled at each station. The lowest possible rating for any indicator is 1 (poorest condition) while the highest rating is 5 (best condition). Sediment chemistry is an exception; 0.5 is the lowest rating, 2.5 the highest. This information is used to evaluate conditions at each location as well as to develop an ecological health score for the reservoir. To obtain this score, ratings from all locations are summed and divided by total possible points for the reservoir. The result is then multiplied by 100. The lowest possible score is 20, the highest is 100.

The following charts present Reservoir Vital Signs scores for each year for which data are comparable. Ecological conditions in Boone Reservoir have been in the poor range for the duration of this monitoring program. Results for 1999 provided the lowest reservoir ecological heath score found to date and are likely resulting from low rainfall conditions resulting in decreased reservoir flows. Sampling will be done again in 2001.

Watauga Reservoir was fair to good for the duration of this monitoring program. Reservoir Vital Signs samples were also collected in 2000 on Watauga Reservoir; results will be made available when analyses are complete

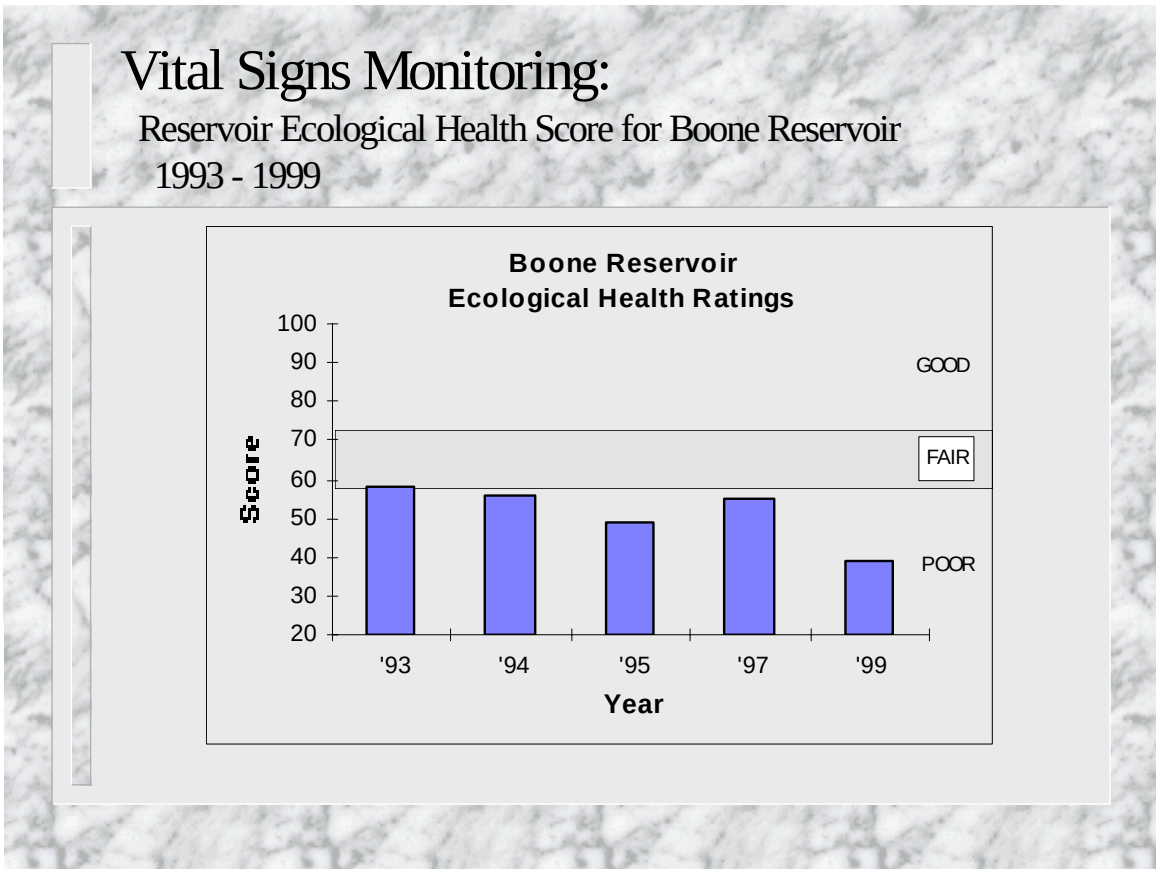

Figure 5-1. Vital Signs Monitoring for Boone Reservoir (1993-1999).

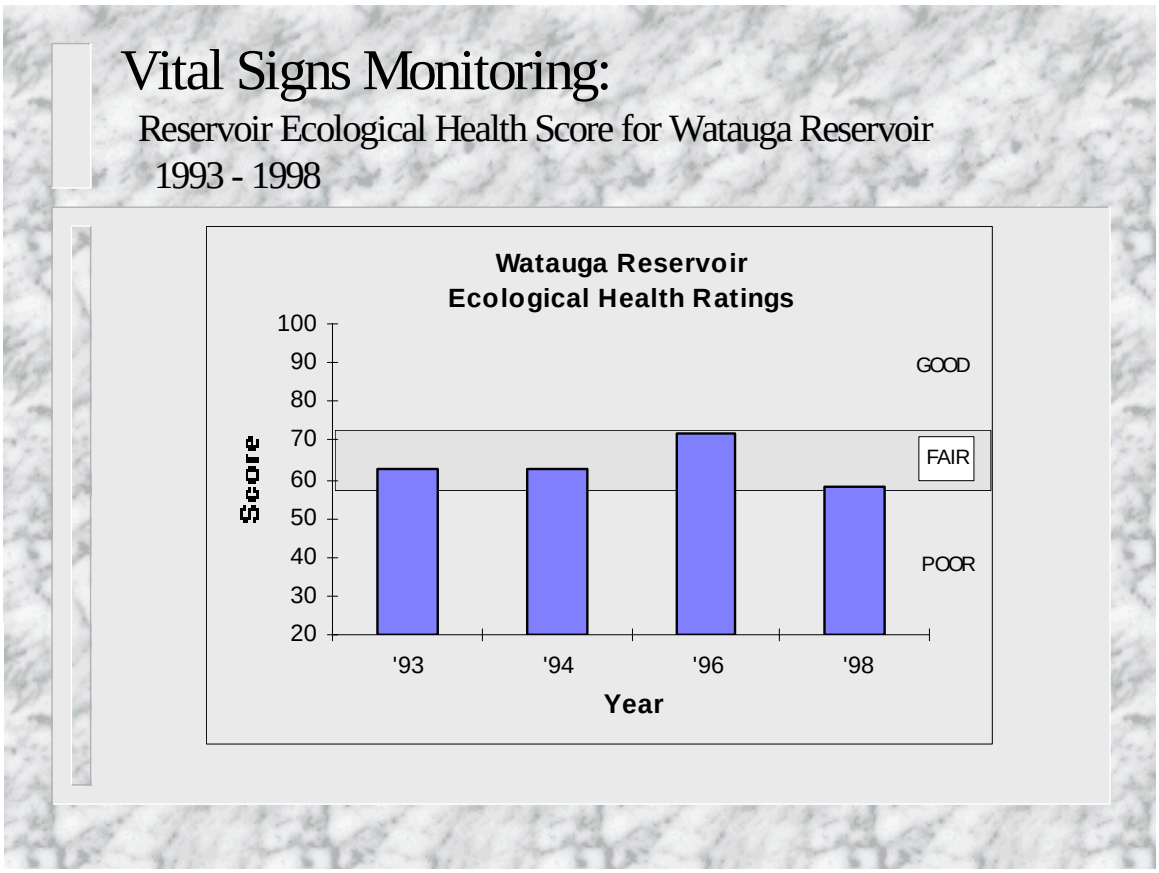

Figure 5-2. Vital Signs Monitoring for Watauga Resrvoir (1993-1998).

Bacteriological sampling: One site on Watauga Reservoir and three sites on Boone Reservoir were sampled ten times each for fecal coliform bacteria in 2000. All sites except Pickens Bridge boat ramp on Boone Reservoir met the State of Tennessee bacteriological water quality criteria for water contact recreation [Tennessee's criteria for water contact recreation requires the collection of at least 10 fecal coliform samples within a 30 day period, with a geometric mean less than 200 fecal coliform colonies per 100 milliliters of water. Also, no single sample should exceed 1,000 colonies per 100 milliliters.]. At Pickens Bridge boat ramp one sample exceeded 1000 colonies per 100 milliliters. However, there are no State of Tennessee swimming advisories on Boone or Watauga Reservoir.

Samples were collected at the following locations:

Site Name	Site Location	Type of Site
Boone Dam TVA Beach	SHRM 18.7	Swim
Jay's Dock Boat Ramp	WRM 5.5L	Boat ramp
Pickens Bridge Boat Ramp	WRM 5.9L	Boat ramp
Watauga Dam TVA Visitor Overlook Area	WRM 37.0R	Swim

Swimming beaches are scheduled for sampling every year and boat ramps every other year. Data from this sampling effort is shared in a timely manner with TDEC's Division of Water Pollution Control. The USDA Forest Service monitors the swimming areas of Shook Branch and Watauga Point on Watauga Reservoir in accordance with Forest Service regulations.

Fish Flesh Toxic Contaminants:

The State of Tennessee has issued a precautionary advisory for catfish and carp from Boone Reservoir because of PCB contamination. The last time TVA sampled Boone was in autumn 1997. Channel catfish fillets were analyzed for pesticides, PCBs, and metals and largemouth bass for mercury. The results, which were provided to state agencies for appropriate action, were similar to previous years. There are no fish consumption advisories on Watauga Lake. The last time TVA sampled channel catfish and largemouth bass from Watauga Lake was in autumn 1996. All contaminant levels were either below detection levels or below the levels used by the state to issue fish consumption advisories. Watauga was sampled in autumn 2000, but results are not available.

Further information on Vital Signs Monitoring can be obtained by writing to Donald Dycus at: Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee, 37402 or calling him at 423/751-7322. Email address: dldycus@tva.gov

Stream Bioassessment

Condition of water resources in Watauga watershed streams is measured using three independent methods; Index of Biotic Integrity (IBI), number of mayfly, stonefly, and caddisfly taxa (EPT), and Habitat Assessment. Not all of these tools were used at each stream sample site.

IBI - The index of biotic integrity (IBI) assesses the quality of water resources in flowing water by examining a stream's fish assemblage. Fish are useful in determining long-term (several years) effects and broad habitat conditions because they are relatively long-lived and mobile. Twelve metrics address species richness and composition, trophic structure (structure of the food chain), fish abundance, and fish health. Each metric reflects the condition of one aspect of the fish assemblage and is scored against reference streams in the region known to be of very high quality. Scores for the 12 metrics are summed to produce the IBI for the site.

EPT - The number and types of aquatic insects, like fish, are indicative of the general quality of the environment in which they live. Unlike fish, aquatic insects are useful in determining short-term and localized impacts because they are short-lived and have limited mobility. The method TVA uses involves only qualitative sampling and field identification of mayflies (Ephemeroptera), stoneflies (Plecoptera), and caddisflies (Trichoptera) to the family taxonomic level (EPT). The score for each site is simply the number of EPT families. The higher EPT scores are indicative of high quality streams because these insect larvae are intolerant of poor water quality.

Habitat Assessment - The quality and quantity of habitat (physical structure) directly affect aquatic communities. Habitat assessments are done at most stream sampling

sites to help interpret IBI and EPT results. If habitat quality at a site is similar to that found at a good reference site, any impacts identified by IBI and EPT scores can reasonably be attributed to water quality problems. However, if habitat at the sample site differs considerably from that at a reference site, lower than expected IBI and EPT scores might be due to degraded habitat rather than water quality impacts.

The habitat assessment method used by TVA (modified EPA protocol) compares observed instream, channel, and bank characteristics at a sample site to those expected at a similar high-quality stream in the region. Each of the stream attributes listed below is given a score of 1 (poorest condition) to 4 (best condition). The habitat score for the sample site is simply the sum of these attributes. Scores can range from a low of 10 to a high of 40.

1. Instream cover (fish)
2. Epifaunal substrate
3. Embeddedness
4. Channel Alteration
5. Sediment Deposition
6. Frequency of Riffle
7. Channel Flow Status
8. Bank vegetation protection - Left bank and right bank, separately
9. Bank stability - Left bank and right bank, separately
10. Riparian vegetation zone width - Left bank and right bank, separately

Sample Site Selection - EPT sampling and fish community assessment (IBI) are conducted at the same sites. Site selection is governed primarily by study objectives, stream physical features, and stream access. TVA's objective is to characterize the quality of water resources within a watershed (11-digit hydrologic unit). Sites are typically located in the lower end of sub-watersheds and at intervals on the mainstem to integrate the effects of land use. A total of 53 sites are sampled in the Watauga drainage. These sites are typically sampled every five years to keep a current picture of watershed condition. The next round of sampling in the Watauga watershed will be coordinated with the monitoring phase of TDEC's Watershed Cycle which calls for data collection to begin again in 2002.

Details about stream bioassessment sampling sites and scores can be obtained by writing Charles Saylor at Tennessee Valley Authority, PO Box 920, Ridge Way Road, Norris, TN 37818 or calling him at 865/632 -1779. Email address is cfsaylor@tva.gov

WATERSHED ASSISTANCE

Outreach

The National Clean Boating Campaign is a partnership program which highlights the importance of clean water so boating will continue to be fun and safe for future generations. The program demonstrates how boaters can be good stewards of their water environment through best boating and marina practices. The Clean Boating Campaign on Boone Reservoir began in 1999 and on Watauga Reservoir in 2000.

Materials were distributed at local marinas that expressed an interest in the program and at public access area. TVA plans to continue this partnership in upcoming years by working with the marinas and the Boone Watershed Partnership and Boone Lake Association.

The Tennessee Valley Clean Marina Initiative is an effort by TVA to promote environmentally-responsible marina practices. A voluntary program, established in support of the National Clean Boating Campaign, will help marina operators protect the resource that provides them with their livelihood. Plans are to implement this program on Watauga Reservoir in 2001 and continue as long as it brings about positive change.

The Boone Watershed Partnership (BWP) was established in August 1999 by TVA. BWP sponsors water monitoring on Buffalo Creek and Doe River with the Elizabethton High School Adopt-A-Watershed class. The Partnership has conducted a public Watershed meeting in the Buffalo Creek Watershed at Milligan College. TVA supported the 12th Annual Watauga River Cleanup and the 5th Annual Doe River Cleanup in Roan Mountain with Trout Unlimited. TVA through the BWP partnered with NRCS and Milligan College and a private landowner to implement two stream bank stabilization projects on Buffalo Creek in 2000. The BWP and TVA, NRCS, Roan Mountain State Park and Appalachian Resource Conservation and Development Council completed demonstration projects on Doe River in Roan Mountain State Park area to showcase various stream bank and habitat improvement projects.

The Boone Lake Association's purpose is to "unite all friends, businesses, organizations, politicians, and corporations who would further and assist in the common cause of keeping Boone Lake clean and pure, not only for now but for generations to come." TVA has supported the association by providing financial support for their litter cleanups. We are helping them expand their program with other projects like the Clean Boating Campaign and riparian buffers and shoreline stabilization demonstrations.

Protection and restoration activities

TVA provides funding and technical assistance for protection and restoration activities to various organizations in the five counties in the Tennessee portion of the Watauga Watershed. The Boone Lake Association (BLA) is actively cleaning up Boone Reservoir. TVA provides funding for a winter drift and debris removal as well as regular clean-ups for about 25 high priority camping areas along the reservoir. The association along with other organizations and TVA sponsored a Boone Reservoir cleanup day for the first time in 2000. BLA provides year-long cleanup with volunteers and paid staff employees. TVA supports the Johnson City-Washington County-Jonesboro Clean Team in all of its Keep America Beautiful endeavors. The Carter County Clean Stream, Trout Unlimited (TU), TVA and others have sponsored for 13 years a clean-up effort on Watauga River. TU sponsors several cleanups on small tributary streams using TVA bags and gloves. Boat Watauga sponsors a cleanup on Watauga Reservoir utilizing inmates from correctional centers and bags and gloves from TVA.

5.2.C. U.S. Forest Service. The USDA Forest Service manages approximately 635,000 acres in Tennessee (Cherokee National Forest). This ownership includes about 106,000 acres within the Watauga River watershed and about 71,000 acres within the Ocoee River watershed in Tennessee. The general mission of the Forest Service is to achieve

an ecological and sustainable multiple use approach to land management that meets the diverse needs of people. In order to achieve this mission a watershed-based approach to ecosystem management has been adopted.

A variety of common management activities occur within these watersheds on national forest lands. These include:

- Completion of a general watershed analysis of all 5th level watersheds that encompass Forest Service ownership in Tennessee, including the Ocoee and Watauga Rivers

- Collaborative planning with a variety of other Federal, State and local agencies and private individuals to identify and prioritize watershed improvement needs on public and private lands

- Watershed improvements including road decommissioning to reduce soil loss and sediment yield

- Fisheries habitat improvements in selected streams

- A program of prescribed burning and timber harvest to improve forest health and wildlife habitat conditions

- Providing a variety of land and water based recreation opportunities

In addition to these common management activities, specific activities occurring in the Watauga River Watershed include:

- Shoreline restoration along Watauga Lake to reduce erosion

- Reference stream monitoring by TDEC at three sites on national forest ownership in the Watauga River watershed

Further information about the Cherokee National Forest can be found on its homepage at http://www.southernregion.fs.fed.us/cherokee.

STATE PARTNERSHIPS.

5.3.A. TDEC Division of Water Supply. Congress, the Environmental Protection Agency, and the states are increasing their emphasis on the prevention of pollution, particularly in the protection of the raw water sources for public water systems. The initial step toward prevention of contamination of public water supplies came with the Federal Safe Drinking Water Act Amendments of 1986. At that time, each state was required to develop a wellhead protection program to protect the water source of public water systems relying on groundwater (wells or springs). The new Source Water Assessment provisions of the Federal Safe Drinking Water Act of 1996 Amendments expanded the scope of protection beyond groundwater systems to include protection of the waters supplying surface water systems.

More information may be found at: www.state.tn.us/environment/dws .

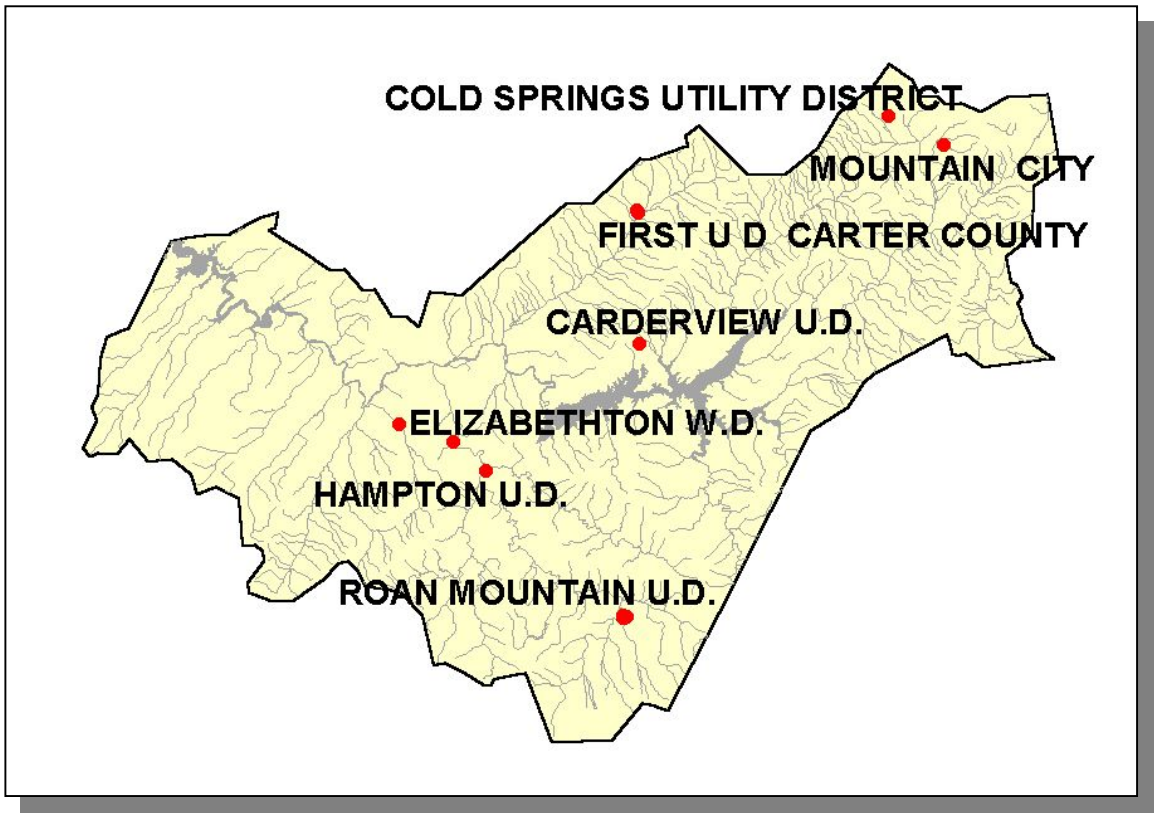

Figure 5-3. Location of Communities Using Groundwater for Water Supply in Watauga River Watershed.

A "wellhead" is the source area for the water, which is withdrawn through a well or spring, similar to the concept of the head of a river. To protect the water supply, it is important to know from where the water flowing to that well or spring is coming. Source water/wellhead protection areas for public water systems using groundwater are generally based on hydrologic considerations and/or modeling. Source water protection

areas for public water systems using surface water are based on the portion of the watershed area upstream of the water intake.

There are three basic steps involved in a wellhead protection program: 1) defining the wellhead protection area, 2) inventorying the potential contaminant sources within that area, and 3) developing a wellhead protection plan. The official designation of wellhead protection areas provides valuable input and emphasis to government agencies in the siting of facilities and the prioritization and cleanup of contaminated sites.

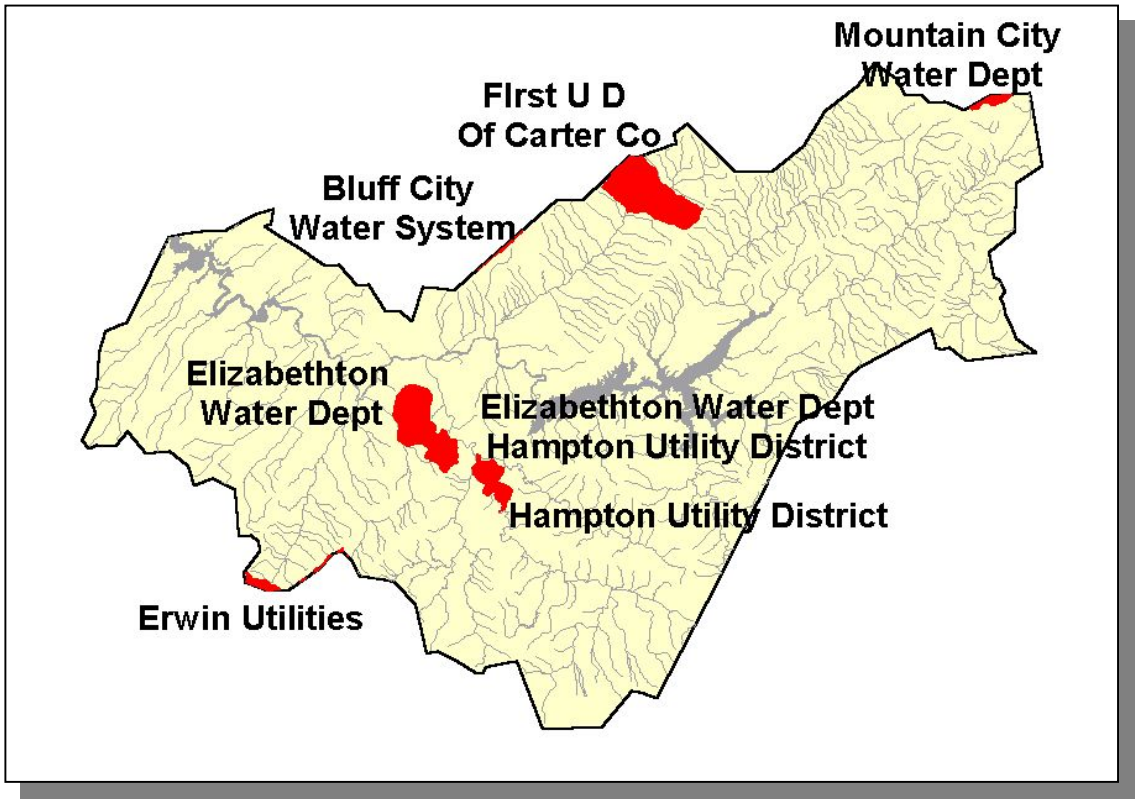

Figure 5-4. Location of Communities in the Wellhead Protection Program in Watauga River Watershed..

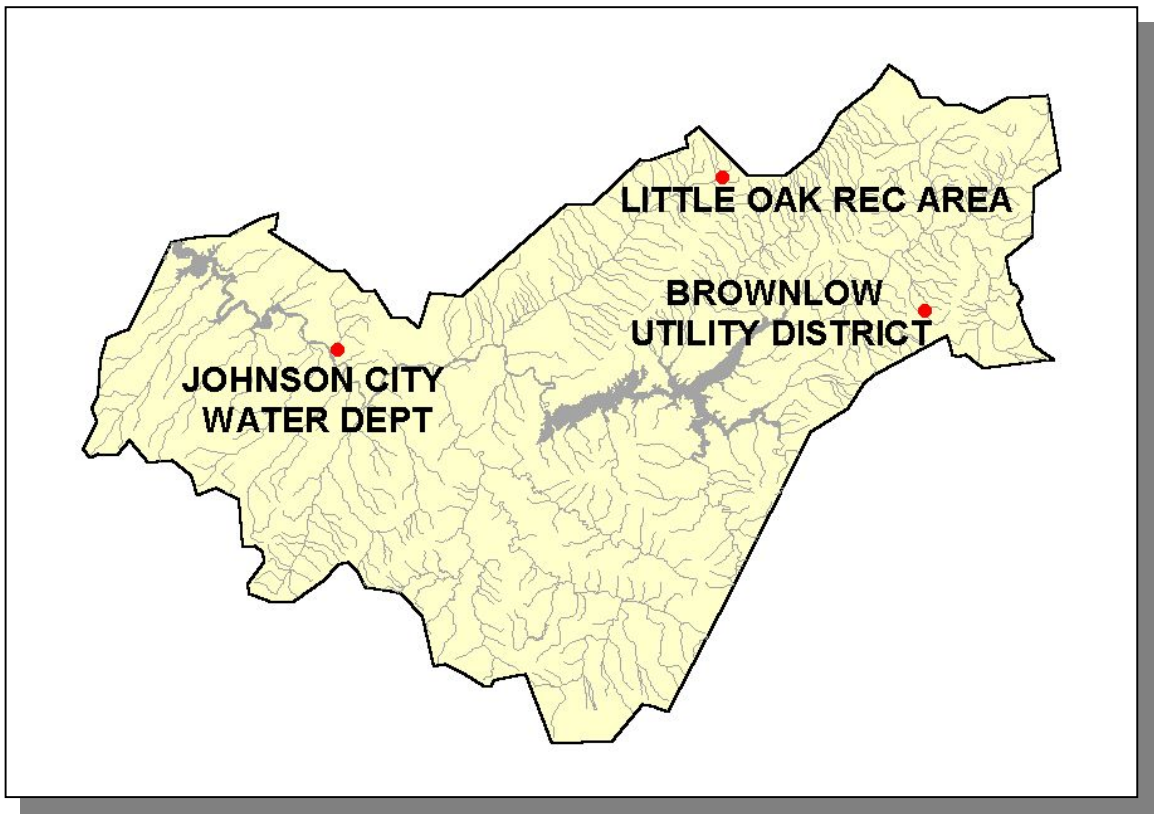

Figure 5-5. Location of Communities with Surface Water Intakes for Water Supply in Watauga River Watershed.

As a part of the Source Water Assessment Program, public water systems are evaluated for their susceptibility to contamination. These individual source water assessments with susceptibility analyses are available to the public at http://www.state.tn.us/environment/dws as well as other information regarding the Source Water Assessment Program and public water systems.

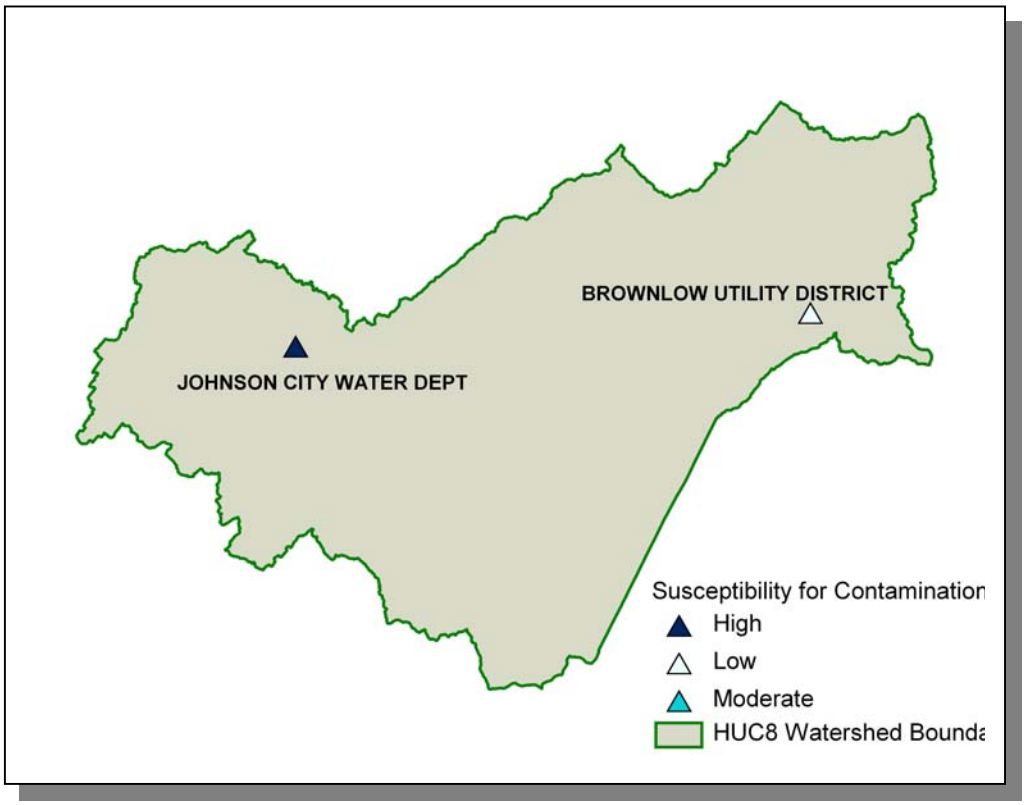

Figure 5-6. Susceptibility for Contamination in the Watauga River Watershed.

5.3.B. State Revolving Fund. TDEC administers the state's Clean Water State Revolving Fund Program. Amendment of the Federal Clean Water Act in 1987 created the Clean Water State Revolving Fund (SRF) Program to provide low-interest loans to cities, counties, and utility districts for the planning, design, and construction of wastewater facilities. The U.S. Environmental Protection Agency awards annual capitalization grants to fund the program and the State of Tennessee provides a twenty-percent funding match. TDEC has awarded loans totaling approximately $500 million since the creation of the SRF Program. SRF loan repayments are returned to the program and used to fund future SRF loans.

SRF loans are available for planning, design, and construction of wastewater facilities, or any combination thereof. Eligible projects include new construction or upgrading/expansion of existing facilities, including wastewater treatment plants, pump stations, force mains, collector sewers, interceptors, elimination of combined sewer overflows, and nonpoint source pollution remedies.

SRF loan applicants must pledge security for loan repayment, agree to adjust user rates as needed to cover debt service and fund depreciation, and maintain financial records that follow governmental accounting standards. SRF loan interest rates range from zero percent to market rate, depending on the community's per-capita income, taxable sales, and taxable property values. Most SRF loan recipients qualify for interest rates between 2 and 4 percent. Interest rates are fixed for the life of the term of the loan. The maximum loan term is 20 years or the design life of the proposed wastewater facility, whichever is shorter.

TDEC maintains a Priority Ranking System and Priority List for funding the planning, design, and construction of wastewater facilities. The Priority Ranking List forms the basis for funding eligibility determinations and allocation of Clean Water SRF loans. Each project's priority rank is generated from specific priority ranking criteria and the proposed project is then placed on the Project Priority List. Only projects identified on the Project Priority List may be eligible for SRF loans. The process of being placed on the Project Priority List must be initiated by a written request from the potential SRF loan recipient or their engineering consultant. SRF loans are awarded to the highest priority projects that have met SRF technical, financial, and administrative requirements and are ready to proceed.

Since SRF loans include federal funds, each project requires development of a Facilities Plan, an environmental review, opportunities for minority and women business participation, a State-approved sewer use ordinance and Plan of Operation, and interim construction inspections.

For further information about Tennessee's Clean Water SRF Loan Program, call (615) 532-0445 or visit their Web site at http://www.tdec.net/srf.

Figure 5-7. Location of Communities Receiving SRF Loans or Grants in the Watauga River Watershed. *More information is provided in Watauga-Appendix V.*

5.3.C. Tennessee Department of Agriculture. The Tennessee Department of Agriculture's Water Resources Section consists of the federal Section 319 Nonpoint Source Program and the Agricultural Resources Conservation Fund Program. Both of these are grant programs which award funds to various agencies, non-profit organizations, and universities that undertake projects to improve the quality of Tennessee's waters and/or educate citizens about the many problems and solutions to water pollution. Both programs fund projects associated with what is commonly known as "nonpoint source pollution."

The Tennessee Department of Agriculture's Nonpoint Source Program (TDA-NPS) has the responsibility for management of the federal Nonpoint Source Program, funded by the US Environmental Protection Agency through the authority of Section 319 of the Clean Water Act. This program was created in 1987 as part of the reauthorization of the Clean Water Act, and it established funding for states, territories and Indian tribes to address NPS pollution. Nonpoint source funding is used for installing Best Management Practices (BMPs) to stop known sources of NPS pollution, training, education, demonstrations and water quality monitoring. The TDA-NPS Program is a non-regulatory program, promoting voluntary, incentive-based solutions to NPS problems. The TDA-NPS Program basically funds three types of programs:

- BMP Implementation Projects. These projects aid in the improvement of an impaired waterbody, or prevent a non-impaired water from becoming listed on the 303(d) List.

- Monitoring Projects. Up to 20% of the available grant funds are used to assist the water quality monitoring efforts in Tennessee streams, both in the state's 5-year watershed monitoring program, and also in performing before-and-after BMP installation, so that water quality improvements can be verified.

- Educational Projects. The intent of educational projects funded through TDA-NPS is to raise the awareness of landowners and other citizens about practical actions that can be taken to eliminate nonpoint sources of pollution to the waters of Tennessee.

The Tennessee Department of Agriculture Agricultural Resources Conservation Fund Program (TDA-ARCF) provides cost-share assistance to landowners across Tennessee to install BMPs that eliminate agricultural nonpoint source pollution. This assistance is provided through Soil Conservation Districts, Resource Conservation and Development Districts, Watershed Districts, universities, and other groups. Additionally, a portion of the TDA-ARCF is used to implement information and education projects statewide, with the focus on landowners, producers, and managers of Tennessee farms and forests.

Participating contractors in the program are encouraged to develop a watershed emphasis for their individual areas of responsibility, focusing on waters listed on the Tennessee 303(d) List as being impaired by agriculture. Current guidelines for the TDA-ARCF are available. Landowners can receive up to 75% of the cost of the BMP as a reimbursement.

The Tennessee Department of Agriculture has spent $47,951 for Agriculture BMPs in the Watauga Watershed since 1998. In the FY-2000 Unified Watershed Assessment, Section 319 money plus match will equal $178,583 in the Watauga River Watershed:

- Johnson County Soil Conservation District contracted a study entitled: Watauga River Water Quality Restoration Project: Roan & Roaring Forge Creeks.

- Boone Watershed Partnership. The partnership has help fund monitoring and various environmental projects in the watershed.

Additional information is provided in Watauga-Appendix V.

Since January of 1999, the Department of Agriculture and the Department of Environment and Conservation have had a Memorandum of Agreement whereby complaints received by TDEC concerning agriculture or silviculture projects would be forwarded to TDA for investigation and possible correction. Should TDA be unable to obtain correction, they would assist TDEC in the enforcement against the violator.

5.3.D. Tennessee Wildlife Resources Agency. The Tennessee Wildlife Resources Agency conducts a variety of activities related to watershed conservation and management. Fish management activities include documentation of fish and aquatic life through stream sampling and stocking of both warm water and cold water sportfish. Fish data are managed in the Geographic Information System (GIS) project called Tennessee Aquatic Data System (TADS). TWRA nongame and endangered species projects include restoration of special status fish ,aquatic life, and riparian wildlife including otters, and nongame fish such as the blue masked darter. The Agency conducts a variety of freshwater mussel management, conservation, and restoration projects including the propagation and reintroduction of species once common in Tennessee streams. TWRA has been involved in riparian conservation projects since 1991 in partnership with state and federal agencies and conservation groups.

For information on these and other water resources related activities, please contact your Regional TWRA office at the following phone numbers:

West Tennessee (Region I)	1-800-372-3928
Middle Tennessee (Region II)	1-800-624-7406
Cumberland Plateau (Region III)	1-800-262-6704
East Tennessee (Region IV)	1-800-332-0900.

TDD services are available @ 615-781-6691.
TWRA's website is http://www.state.tn.us/twra.

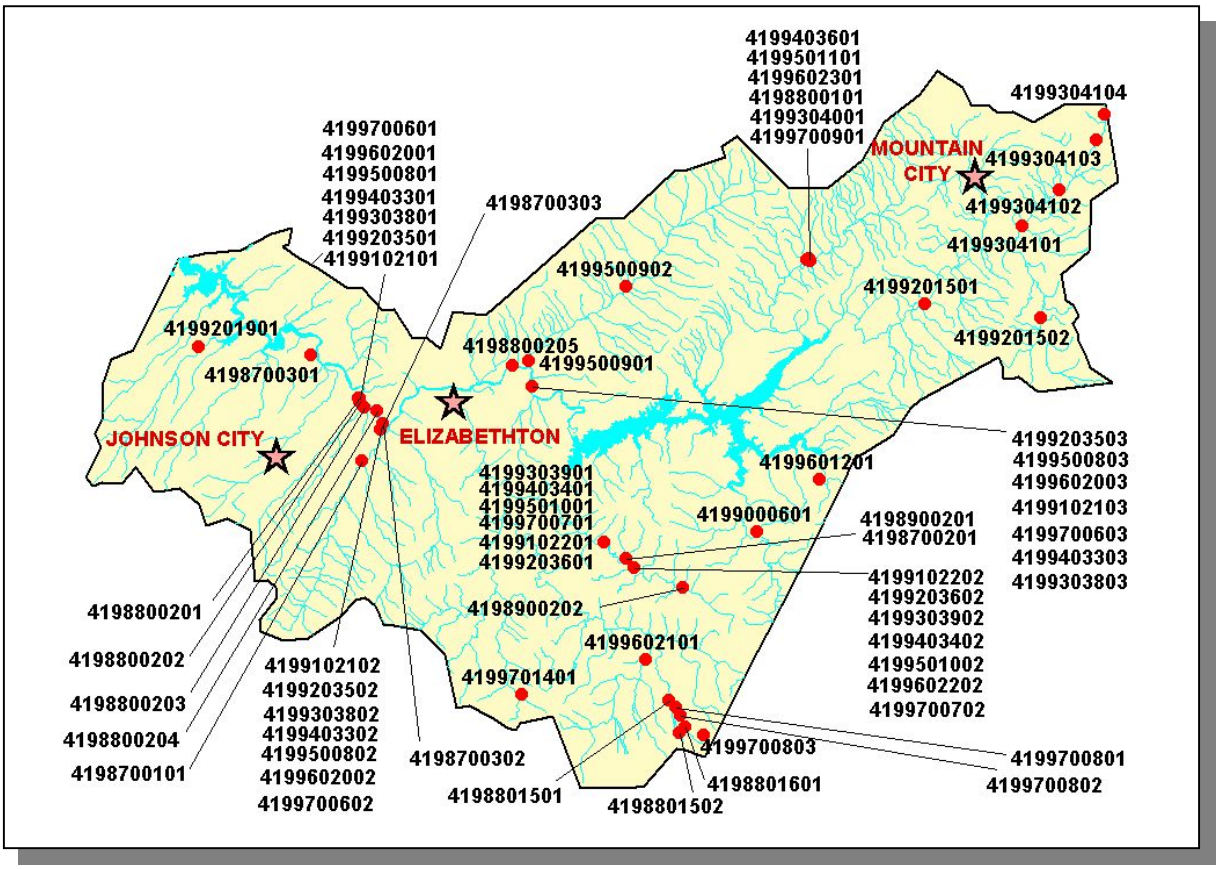

Figure 5-8. Location of TWRA TADS Sampling Sites in Watauga River Watershed. *Locations of Johnson City, Elizabethton,, and Mountain City are shown for reference. Additional Information is presented in Watauga-Appendix V.*

5.3.E. North Carolina's Basinwide Planning Program and Water Quality in the Watauga River Watershed. Basinwide planning is a non-regulatory watershed-based approach to restoring and protecting the quality of North Carolina's surface waters. In an approach similar to that employed in the State of Tennessee, the North Carolina Division of Water Quality (DWQ) prepares water quality plans for each of 17 major river basins in the state according to a defined schedule. The plans are prepared in order to communicate to policymakers, the regulated community and the general public the state's rationale, approaches and long-term management strategies for each river basin. Each plan is circulated for public review and presented at public meetings in the basin. After implementation, the plans are re-evaluated, based on follow-up water quality monitoring, and updated at five-year intervals.

DWQ initiated basinwide planning activities in 1990, when it began conducting water quality monitoring for the first basinwide plan, published in 1993. Since then, DWQ has produced plans for all 17 river basins and has begun to update those plans for each basin. The new plans emphasize changes in water quality and give the status of recommendations made in the previous plan. The *Watauga River Basinwide Water Quality Management Plan,* published in 1997, contains information about water quality in

the North Carolina portion of the basin. DWQ is currently in the process of updating this basin plan. A public workshop was held in November of 2000 where results of recent water quality monitoring data was presented. A draft plan for public review will be available in fall of 2001 and a public meeting to obtain comments on the draft will also be held at that time.

For more information concerning water quality in the Watauga River basin in North Carolina, visit the Basinwide Planning Program website or contact the Watauga River Basin Planner:

http://h2o.enr.state.nc.us/basinwide/

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5.4 LOCAL INITIATIVES.

5.4.A. Boone Watershed Partnership (BWP). The mission of the BWP is: To partner with local users, regional, state, and Federal entities, educators, and others to identify and address water resource issues in the Boone Watershed. The Boone Watershed Partnership is an organization dedicated to improving the water quality and habitat of South Fork Holston and Watauga Tailwaters and Boone Lake.

The goals of the partnership are to: 1) share information on water conditions and issues among resource agencies, water users and the public; 2) develop consensus on priorities and actions needed to address regional issues; 3) marshal resources to carry out needed actions and 4) promote awareness of the importance of water resources to the regional economy and to the quality of life.

Projects include:

- Stream bank restoration
- Stream litter/trash cleanups
- Annual Recognition event to highlight water quality accomplishments among educators, land owners, organizations and municipalities.
- Sponsors an Adopt-A-Watershed program for high schools.

Recent activities in Watauga River Watershed include:

- Water Quality monitoring on Buffalo Creek and Doe River with the Elizabethton High School Adopt-A-Watershed class.
- Conducting a public watershed meeting in the Buffalo Creek Watershed at Milligan College.
- Conducted 12th Annual Watauga River Cleanup with Trout Unlimited.
- Conducted 5th Annual Doe River Cleanup in Roan Mountain with Trout Unlimited.
- Partnered with TVA, NRCS and Milligan College to complete a stream bank stabilization project on Buffalo Creek.
- Partnered with TVA, NRCS and a landowner on Buffalo Creek in order to complete a stream bank stabilization project.
- Partnered with TVA, NRCS, Roan Mountain State Park and Appalachian Resource Conservation and Development Council to complete demonstration projects on Doe River in Roan Mountain State Park area, showcasing various stream bank and habitat improvement projects.

The Boone Watershed Partnership is the recipient of Tennessee Department of Environment and Conservation's "Aquatic Resource Preservation" Award in 1998 and 1999.

For more information, contact:

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Johnson City, TN 37601-3320
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5.4.B. The Nature Conservancy. The mission of The Nature Conservancy is “to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive."

The Nature Conservancy's Tennessee Chapter owns two wetland restoration sites in the Watauga River watershed's Shady Valley, just 20 miles south of Bristol. Rare and endangered reptiles, migratory birds, and wetland plants like cranberries distinguish Shady Valley from other Southern Appalachian agricultural communities. By restoring the hydrology on over 100 acres of ditched and drained marginal farmland, the Conservancy is expanding wetland habitat that both rare species and Shady Valley's human residents may enjoy. The wetland properties combined with two other Conservancy nature preserves total over 600 acres of protected land within a five-square-mile area.

For more information, contact Charles McQueen, Shady Valley Preserves Manager, cmcqueen@tnc.org